

TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PCT-2427	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/JP2004/016681	International filing date (day/month/year) 10.11.2004	Priority date (day/month/year) 08.12.2003	
International Patent Classification (IPC) or national classification and IPC C10B53/00 (2006.01) , C10B47/00 (2006.01)			
Applicant INTELLECTUAL PROPERTY BANK CORP.			

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of 3 sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

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International application No.
PCT/JP2004/016681

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:

 - international search (Rule 12.3 and 23.1(b))
 - publication of the international application (Rule 12.4)
 - international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

the international application as originally filed/furnished

the description:

pages 1-17 as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

the claims:

nos. 4-12 as originally filed/furnished

nos.* 1-3 as amended (together with any statement) under Article 19

nos.* _____ received by this Authority on _____

nos.* _____ received by this Authority on _____

the drawings:

sheets fig. 1-2 as originally filed/furnished

sheets* _____ received by this Authority on _____

sheets* _____ received by this Authority on _____

a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. The amendments have resulted in the cancellation of:

the description, pages _____

the claims, nos. _____

the drawings, sheets/figs _____

the sequence listing (*specify*): _____

any table(s) related to sequence listing (*specify*): _____
4. This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

the description, pages _____

the claims, nos. _____

the drawings, sheets/figs _____

the sequence listing (*specify*): _____

any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/JP2004/016681Box No. V **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	1-12	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-12	NO
Industrial applicability (IA)	Claims	1-12	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

Document 1: JP 2002-194362 A (Nijieda Kabushiki Kaisha),
10 July 2002

Document 2: JP 2002-364816 A (Kubota Corp.), 18 December
2002

Document 3: JP 2002-322479 A (Kubota Corp.), 08 November
2002

Document 4: JP 2001-220120 A (NKK Sogo Sekkei Kabushiki
Kaisha), 14 August 2001

Document 5: JP 2001-19970 A (Tatsuya MARUKAWA et al.), 23
January 2001

Documents 1 to 5 are cited in the international
search report.

1. Claims 1 and 4 to 12

The inventions set forth in claims 1 and 4 to 12 do not involve an inventive step in the light of documents 1, 2 and 5.

Document 1 discloses a carbonization device wherein the superheated steam from the superheated steam supply source is brought into contact with an object to be treated so as to carbonize said object to be treated; therein, document 1 also indicates that said device is

Box No. V **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

equipped with a gas treatment device (i.e., a deodorization device) for burning the gas that is discharged from the carbonization furnace under high temperature conditions.

Meanwhile, document 2 discloses a device for subjecting organic waste to a heat treatment, which is equipped with a waste heat boiler that employs the exhaust gas from the deodorization furnace; therein, document 2 further indicates that said device supplies the steam that is generated by the waste heat boiler to the carbonization furnace.

Such being the case, it would have been easy to conceive of providing a waste heat boiler at a location downstream from the deodorization device of the carbonization device disclosed in document 1 in order to use the waste heat more effectively. At that time, it would be a natural design change to configure so that the steam generated by the waste heat boiler is supplied to the carbonization furnace via the superheated steam supply source instead of being supplied directly to the carbonization furnace.

Furthermore, configurations wherein a gas is supplied to a cylindrical device from a tangential direction are well known, as disclosed in document 5 for example.

2. Claims 2 and 4 to 12

The inventions set forth in claims 2 and 4 to 12 do not involve an inventive step in the light of documents 1 to 3 and 5.

Document 3 discloses a device for subjecting waste to a gasification treatment, which is equipped with a

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dryer that is disposed at a location upstream from the waste pyrolysis furnace; therein, document 3 also indicates that the exhaust gas from the waste pyrolysis furnace is used as the heat source for the dryer.

3. Claims 3 to 12

The inventions set forth in claims 3 to 12 do not involve an inventive step in the light of documents 1 to 5.

Document 4 discloses a device for producing activated carbon from waste, which is equipped with an activation furnace that is disposed at a location downstream from the carbonization furnace; therein, document 4 also indicates that the exhaust gas from the activation furnace is used in the carbonization furnace.